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(54) **DISSOLUTION AGENT AND PROCESS FOR MAKING RAPIDLY SOLUBLE INSTANT BEVERAGE PRODUCTS**

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(52) **U.S. Cl.** **426/594**; 426/285; 426/654;
426/590; 426/453

(58) **Field of Search** 426/594, 285,
426/654, 590, 453

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,958,033 A * 5/1976 Sims et al.
4,242,364 A * 12/1980 Buddemeyer et al.

4,310,561 A * 1/1982 Buddemeyer et al.
4,460,617 A * 7/1984 Brandt
4,950,140 A * 8/1990 Pflaumer et al.
5,424,085 A * 6/1995 Hsieh et al.
5,741,538 A * 4/1998 Stipp et al.

FOREIGN PATENT DOCUMENTS

JP 402016959 * 1/1990

* cited by examiner

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(57) **ABSTRACT**

A novel dissolution agent, and its use in the manufacture of instant (flavored and unflavored) beverage products, (coffee, hot chocolate, teas, creamy juice drinks, milk shakes, nutritional drinks, and the like, especially instant coffee products), that have improved mouthfeel (“creaminess”, “richness”, “body”, “complexity”, “body-richness”, “substantial”) and thickness, without “sliminess” or “stringiness”. This novel dissolution agent may also be used to make a binder solution that will be used during manufacturing in the agglomeration process. The instant beverage products made according to the present invention, (especially preferred are instant coffee products), can deliver a creamy, rich, preferably foamy, beverage with a clean, improved mouthfeel and thickness without “sliminess” or “stringiness”, as well as a higher flavor impact, at a lower dosage of solids (5–10%, preferably 6.5–8.5%, and more preferably 7.5%).

18 Claims, No Drawings